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October 28, 2016

VIA ELECTRONIC FILING

The Honorable Jocelyn G. Boyd
Chief Clerk/Administrator
Public Service Commission of South Carolina
101 Executive Center Drive, Suite 100
Columbia, South Carolina 29210

Re: **Duke Energy Progress, LLC – Monthly Power Plant Performance
Report
Docket No. 2006-224-E**

Dear Mrs. Boyd:

Pursuant to the Commission's Orders in Docket No. 1977-354-E, enclosed for filing is the Monthly Power Plant Performance Report in Docket No. 2006-224-E for the month of September 2016. Also enclosed is a revision for the August Nuclear Baseload Report 13E with updated information for the "Reason Outage Occurred" and "Remedial Action Taken" columns to better describe the event for Robinson 2 based on INPO event coding guidance.

Should you have any questions regarding this matter, please do not hesitate to contact me at 704.382.4499.

Sincerely,

A handwritten signature in blue ink that reads "Rebecca Dulin".

Rebecca J. Dulin

Enclosure

cc: Ms. Dawn Hipp, Office of Regulatory Staff
Mr. Jeffrey M. Nelson, Office of Regulatory Staff
Ms. Shannon Bowyer Hudson, Office of Regulatory Staff
Ms. Nanette Edwards, Office of Regulatory Staff
Michael Seaman-Huynh, Office of Regulatory Staff
Ms. Heather Shirley Smith, Duke Energy
Mr. Scott Elliott, Elliott & Elliott, P.A.
Mr. Garrett Stone, Brickfield, Burchette, Ritts & Stone, PC
Mr. Gary Walsh, Walsh Consulting, LLC

Duke Energy Progress
Base Load Power Plant Performance Review Plan

Period: September, 2016

Station	Unit	Date of Outage	Duration of Outage	Scheduled / Unscheduled	Cause of Outage	Reason Outage Occurred	Remedial Action Taken
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Brunswick	1	None					
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	2	None					
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Harris	1	None					
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Robinson	2	08/27/2016 - 09/05/2016	97.00	Scheduled	Maintenance outage to repair low pressure turbine blades	Outage to address turbine blade indications	Turbine blade indications repaired
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	2	09/05/2016 - 09/05/2016	11.92	Scheduled	Maintenance outage to repair low pressure turbine blades	Outage to address turbine blade indication extended	Turbine blade indications repaired
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**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
September 2016**

Lee Energy Complex

No Outages at Baseload Units During the Month.

Mayo Station

No Outages at Baseload Units During the Month.

Richmond County Station

Unit	Duration of Outage	Type of Outage	Cause of Outage	Reason Outage Occurred	Remedial Action Taken
7	9/10/2016 3:56:00 AM To 10/1/2016 12:00:00 AM	Sch	5274 General Gas Turbine Unit Inspection	U7 Outage for boroscope and generator rotor pull	
8	9/10/2016 3:56:00 AM To 10/1/2016 12:00:00 AM	Sch	5272 Gas Turbine - Boroscope Inspection	U8 / PB4 outage Boroscope	
ST4	9/10/2016 3:40:00 AM To 10/1/2016 12:00:00 AM	Sch	4400 Major Turbine Overhaul (720 Hours Or Longer)	PB4 block outage	
9	9/24/2016 4:05:00 AM To 10/16/2016 1:06:00 AM	Sch	5272 Gas Turbine - Boroscope Inspection	Boroscope inspection, BOP work	
10	9/24/2016 4:05:00 AM To 10/1/2016 12:00:00 AM	Sch	5272 Gas Turbine - Boroscope Inspection	Boroscope inspection, BOP work	
ST5	9/25/2016 4:01:00 AM To 10/17/2016 4:08:00 AM	Sch	4520 Gen. Stator Windings; Bushings; And Terminals	Changing 1 cracked high bushing	

Roxboro Station

Unit	Duration of Outage	Type of Outage	Cause of Outage	Reason Outage Occurred	Remedial Action Taken
2	9/2/2016 4:25:00 PM To 9/2/2016 11:33:00 PM	Sch	4619 Other Hydrogen System Problems	Repair Generator Gas Leak	
3	9/17/2016 2:30:00 AM To 10/3/2016 8:55:00 AM	Sch	4402 Minor Turbine Overhaul (less Than 720 Hour)	Planned Outage	
4	9/4/2016 3:35:00 PM To 9/7/2016 2:34:00 PM	Unsch	1510 Flue Gas Ducts (Except Recirculation)	Unit Retired to Repair Booster Fan Duct	

Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
September 2016**

Sutton Energy Complex

Unit	Duration of Outage	Type of Outage	Cause of Outage		Reason Outage Occurred	Remedial Action Taken
1A	9/20/2016 3:24:00 AM To 9/20/2016 7:30:00 AM	Sch	9657	Other Stack Or Exhaust Emissions Testing - Gt	Gas flow transmitters calibration	
1A	9/20/2016 7:30:00 AM To 9/20/2016 4:48:00 PM	Sch	3611	Switchyard Circuit Breakers	Preparing to remove circuit breakers in 115kv switchyard	
1B	9/18/2016 4:10:00 AM To 9/18/2016 8:41:00 AM	Sch	9657	Other Stack Or Exhaust Emissions Testing - Gt	Gas flow transmitters calibration	

Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

Duke Energy Progress
Base Load Power Plant Performance Review Plan

September 2016
Brunswick Nuclear Station

	<u>Unit 1</u>	<u>Unit 2</u>		
(A) MDC (mW)	938	932		
(B) Period Hours	720	720		
(C) Net Gen (mWh) and Capacity Factor (%)	681,761	100.95	655,969	97.75
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00	0	0.00
* (E) Net mWh Not Gen due to Partial Scheduled Outages	0	0.00	9,457	1.41
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-6,401	-0.95	5,614	0.84
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00	0	0.00
* (I) Core Conservation	0	0.00	0	0.00
(J) Net mWh Possible in Period	675,360	100.00%	671,040	100.00%
(K) Equivalent Availability (%)		100.00		98.14
(L) Output Factor (%)		100.95		97.75
(M) Heat Rate (BTU/NkWh)		10,186		10,385

* Estimate

FOOTNOTE: D and F Include Ramping Losses

Duke Energy Progress
Base Load Power Plant Performance Review Plan

September 2016
Harris Nuclear Station

Unit 1

(A) MDC (mW)	928	
(B) Period Hours	720	
(C) Net Gen (mWh) and Capacity Factor (%)	672,401	100.63
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00
* (E) Net mWh Not Gen due to Partial Scheduled Outages	3,164	0.47
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-7,405	-1.10
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00
* (I) Core Conservation	0	0.00
(J) Net mWh Possible in Period	668,160	100.00%
(K) Equivalent Availability (%)		100.00
(L) Output Factor (%)		100.63
(M) Heat Rate (BTU/NkWh)		10,463

* Estimate

FOOTNOTE: D and F Include Ramping Losses

Duke Energy Progress
Base Load Power Plant Performance Review Plan

September 2016
Robinson Nuclear Station

Unit 2

(A) MDC (mW)	741	
(B) Period Hours	720	
(C) Net Gen (mWh) and Capacity Factor (%)	441,462	82.75
(D) Net mWh Not Gen due to Full Schedule Outages	80,707	15.13
* (E) Net mWh Not Gen due to Partial Scheduled Outages	4,216	0.79
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	7,135	1.33
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00
* (I) Core Conservation	0	0.00
(J) Net mWh Possible in Period	533,520	100.00%
(K) Equivalent Availability (%)		83.54
(L) Output Factor (%)		97.49
(M) Heat Rate (BTU/NkWh)		10,985

* Estimate

FOOTNOTE: D and F Include Ramping Losses

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
September 2016**

Lee Energy Complex

	Unit 1A	Unit 1B	Unit 1C	Unit ST1	Block Total
(A) MDC (mW)	177	176	179	378	910
(B) Period Hrs	720	720	720	720	720
(C) Net Generation (mWh)	108,599	109,091	110,277	217,520	545,487
(D) Capacity Factor (%)	85.22	86.09	85.57	79.92	83.26
(E) Net mWh Not Generated due to Full Scheduled Outages	0	0	0	0	0
(F) Scheduled Outages: percent of Period Hrs	0.00	0.00	0.00	0.00	0.00
(G) Net mWh Not Generated due to Partial Scheduled Outages	0	0	0	0	0
(H) Scheduled Derates: percent of Period Hrs	0.00	0.00	0.00	0.00	0.00
(I) Net mWh Not Generated due to Full Forced Outages	0	0	0	0	0
(J) Forced Outages: percent of Period Hrs	0.00	0.00	0.00	0.00	0.00
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	8,427	8,427
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	3.10	1.29
(M) Net mWh Not Generated due to Economic Dispatch	18,841	17,629	18,603	46,213	101,286
(N) Economic Dispatch: percent of Period Hrs	14.78	13.91	14.43	16.98	15.46
(O) Net mWh Possible in Period	127,440	126,720	128,880	272,160	655,200
(P) Equivalent Availability (%)	100.00	100.00	100.00	96.90	98.71
(Q) Output Factor (%)	85.22	86.09	85.57	79.92	83.26
(R) Heat Rate (BTU/NkWh)	9,999	10,162	10,041	3,181	7,321

Footnote: (R) Includes Light Off BTU's
Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
September 2016**

Richmond County Station

	Unit 7	Unit 8	Unit ST4	Block Total
(A) MDC (mW)	160	157	165	482
(B) Period Hrs	720	720	720	720
(C) Net Generation (mWh)	31,046	30,928	37,612	99,586
(D) Capacity Factor (%)	26.95	27.36	31.66	28.70
(E) Net mWh Not Generated due to Full Scheduled Outages	80,011	78,510	82,555	241,076
(F) Scheduled Outages: percent of Period Hrs	69.45	69.45	69.49	69.47
(G) Net mWh Not Generated due to Partial Scheduled Outages	0	0	0	0
(H) Scheduled Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(I) Net mWh Not Generated due to Full Forced Outages	0	0	0	0
(J) Forced Outages: percent of Period Hrs	0.00	0.00	0.00	0.00
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	4,143	3,602	0	7,745
(N) Economic Dispatch: percent of Period Hrs	3.60	3.19	0.00	2.23
(O) Net mWh Possible in Period	115,200	113,040	118,800	347,040
(P) Equivalent Availability (%)	30.55	30.55	30.51	30.53
(Q) Output Factor (%)	88.23	89.57	103.77	93.98
(R) Heat Rate (BTU/NkWh)	11,899	11,473	0	7,273

Footnote: (R) Includes Light Off BTU's
Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
September 2016**

Richmond County Station

	Unit 9	Unit 10	Unit ST5	Block Total
(A) MDC (mW)	178	178	250	606
(B) Period Hrs	720	720	720	720
(C) Net Generation (mWh)	93,685	94,351	134,836	322,872
(D) Capacity Factor (%)	73.10	73.62	74.91	74.00
(E) Net mWh Not Generated due to Full Scheduled Outages	29,177	29,177	34,996	93,350
(F) Scheduled Outages: percent of Period Hrs	22.77	22.77	19.44	21.39
(G) Net mWh Not Generated due to Partial Scheduled Outages	0	0	0	0
(H) Scheduled Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(I) Net mWh Not Generated due to Full Forced Outages	0	0	0	0
(J) Forced Outages: percent of Period Hrs	0.00	0.00	0.00	0.00
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	5,298	4,632	10,168	20,098
(N) Economic Dispatch: percent of Period Hrs	4.13	3.61	5.65	4.61
(O) Net mWh Possible in Period	128,160	128,160	180,000	436,320
(P) Equivalent Availability (%)	77.23	77.23	80.56	78.61
(Q) Output Factor (%)	94.65	95.32	92.99	94.14
(R) Heat Rate (BTU/NkWh)	11,652	11,504	0	6,743

Footnote: (R) Includes Light Off BTU's
Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
September 2016**

Roxboro Station

Unit 2

(A) MDC (mW)	671
(B) Period Hrs	720
(C) Net Generation (mWh)	346,513
(D) Capacity Factor (%)	71.72
(E) Net mWh Not Generated due to Full Scheduled Outages	4,786
(F) Scheduled Outages: percent of Period Hrs	0.99
(G) Net mWh Not Generated due to Partial Scheduled Outages	0
(H) Scheduled Derates: percent of Period Hrs	0.00
(I) Net mWh Not Generated due to Full Forced Outages	0
(J) Forced Outages: percent of Period Hrs	0.00
(K) Net mWh Not Generated due to Partial Forced Outages	0
(L) Forced Derates: percent of Period Hrs	0.00
(M) Net mWh Not Generated due to Economic Dispatch	131,821
(N) Economic Dispatch: percent of Period Hrs	27.29
(O) Net mWh Possible in Period	483,120
(P) Equivalent Availability (%)	99.01
(Q) Output Factor (%)	80.12
(R) Heat Rate (BTU/NkWh)	8,796

Footnote: (R) Includes Light Off BTU's
Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
September 2016**

Sutton Energy Complex

	Unit 1A	Unit 1B	Unit ST1	Block Total
(A) MDC (mW)	179	179	264	622
(B) Period Hrs	720	720	720	720
(C) Net Generation (mWh)	120,149	122,743	163,285	406,177
(D) Capacity Factor (%)	93.23	95.24	85.90	90.70
(E) Net mWh Not Generated due to Full Scheduled Outages	2,399	808	0	3,207
(F) Scheduled Outages: percent of Period Hrs	1.86	0.63	0.00	0.72
(G) Net mWh Not Generated due to Partial Scheduled Outages	0	0	5,553	5,553
(H) Scheduled Derates: percent of Period Hrs	0.00	0.00	2.92	1.24
(I) Net mWh Not Generated due to Full Forced Outages	0	0	0	0
(J) Forced Outages: percent of Period Hrs	0.00	0.00	0.00	0.00
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	173	173
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.09	0.04
(M) Net mWh Not Generated due to Economic Dispatch	6,332	5,329	21,070	32,731
(N) Economic Dispatch: percent of Period Hrs	4.91	4.13	11.08	7.31
(O) Net mWh Possible in Period	128,880	128,880	190,080	447,840
(P) Equivalent Availability (%)	98.14	99.37	96.99	98.01
(Q) Output Factor (%)	94.99	95.84	85.90	91.35
(R) Heat Rate (BTU/NkWh)	11,874	11,750	0	7,063

Footnote: (R) Includes Light Off BTU's
Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Intermediate Power Plant Performance
Review Plan
September 2016**

Mayo Station

Unit 1

(A) MDC (mW)	727
(B) Period Hrs	720
(C) Net Generation (mWh)	282,874
(D) Net mWh Possible in Period	523,440
(E) Equivalent Availability (%)	92.55
(F) Output Factor (%)	55.93
(G) Capacity Factor (%)	54.04

Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Intermediate Power Plant Performance
Review Plan
September 2016**

	Roxboro Station	
	Unit 3	Unit 4
(A) MDC (mW)	691	698
(B) Period Hrs	720	720
(C) Net Generation (mWh)	171,406	341,442
(D) Net mWh Possible in Period	497,520	502,560
(E) Equivalent Availability (%)	53.68	88.71
(F) Output Factor (%)	64.18	75.37
(G) Capacity Factor (%)	34.45	67.94

Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

Duke Energy Progress
Base Load Power Plant Performance Review Plan

October 2015 - September 2016
Brunswick Nuclear Station

	<u>Unit 1</u>	<u>Unit 2</u>		
(A) MDC (mW)	938	932		
(B) Period Hours	8784	8784		
(C) Net Gen (mWh) and Capacity Factor (%)	7,248,076	87.97	8,128,291	99.29
(D) Net mWh Not Gen due to Full Schedule Outages	709,034	8.61	0	0.00
* (E) Net mWh Not Gen due to Partial Scheduled Outages	164,608	2.00	39,208	0.48
(F) Net mWh Not Gen due to Full Forced Outages	165,979	2.01	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-48,305	-0.59	19,189	0.23
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00	0	0.00
* (I) Core Conservation	0	0.00	0	0.00
(J) Net mWh Possible in Period	8,239,392	100.00%	8,186,688	100.00%
(K) Equivalent Availability (%)		87.80		99.48
(L) Output Factor (%)		98.42		99.29
(M) Heat Rate (BTU/NkWh)		10,300		10,505

* Estimate

FOOTNOTE: D and F Include Ramping Losses

Duke Energy Progress
Base Load Power Plant Performance Review Plan

October 2015 - September 2016
Harris Nuclear Station

Unit 1

(A) MDC (mW)	928	
(B) Period Hours	8784	
(C) Net Gen (mWh) and Capacity Factor (%)	8,341,528	102.33
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00
* (E) Net mWh Not Gen due to Partial Scheduled Outages	8,425	0.10
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-198,401	-2.43
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00
* (I) Core Conservation	0	0.00
(J) Net mWh Possible in Period	8,151,552	100.00%
(K) Equivalent Availability (%)		99.82
(L) Output Factor (%)		102.33
(M) Heat Rate (BTU/NkWh)		10,340

* Estimate

FOOTNOTE: D and F Include Ramping Losses

Duke Energy Progress
Base Load Power Plant Performance Review Plan

October 2015 - September 2016
Robinson Nuclear Station

Unit 2

(A) MDC (mW)	741	
(B) Period Hours	8784	
(C) Net Gen (mWh) and Capacity Factor (%)	6,295,835	96.73
(D) Net mWh Not Gen due to Full Schedule Outages	367,993	5.65
* (E) Net mWh Not Gen due to Partial Scheduled Outages	8,660	0.13
(F) Net mWh Not Gen due to Full Forced Outages	55,414	0.85
* (G) Net mWh Not Gen due to Partial Forced Outages	-218,958	-3.36
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00
* (I) Core Conservation	0	0.00
(J) Net mWh Possible in Period	6,508,944	100.00%
(K) Equivalent Availability (%)		93.10
(L) Output Factor (%)		103.46
(M) Heat Rate (BTU/NkWh)		10,387

* Estimate

FOOTNOTE: D and F Include Ramping Losses

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
October, 2015 through September, 2016**

Lee Energy Complex

	Unit 1A	Unit 1B	Unit 1C	Unit ST1	Block Total
(A) MDC (mW)	196	195	197	378	967
(B) Period Hrs	8,784	8,784	8,784	8,784	8,784
(C) Net Generation (mWh)	1,323,138	1,357,301	1,377,168	2,509,264	6,566,871
(D) Capacity Factor (%)	76.81	79.20	79.47	75.49	77.32
(E) Net mWh Not Generated due to Full Scheduled Outages	96,019	109,884	70,381	465,227	741,511
(F) Scheduled Outages: percent of Period Hrs	5.57	6.41	4.06	14.00	8.73
(G) Net mWh Not Generated due to Partial Scheduled Outages	0	0	0	57,406	57,406
(H) Scheduled Derates: percent of Period Hrs	0.00	0.00	0.00	1.73	0.68
(I) Net mWh Not Generated due to Full Forced Outages	34,196	317	1,570	0	36,083
(J) Forced Outages: percent of Period Hrs	1.99	0.02	0.09	0.00	0.42
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	24,301	24,301
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.73	0.29
(M) Net mWh Not Generated due to Economic Dispatch	269,223	246,291	283,730	267,803	1,067,045
(N) Economic Dispatch: percent of Period Hrs	15.63	14.37	16.37	8.06	12.56
(O) Net mWh Possible in Period	1,722,576	1,713,792	1,732,848	3,324,000	8,493,216
(P) Equivalent Availability (%)	92.10	93.61	95.87	83.55	89.88
(Q) Output Factor (%)	87.39	88.56	88.81	87.77	88.07
(R) Heat Rate (BTU/NkWh)	9,410	9,417	9,274	4,028	7,326

Footnote: (R) Includes Light Off BTU's
Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
October, 2015 through September, 2016**

Richmond County Station

	Unit 7	Unit 8	Unit ST4	Block Total
(A) MDC (mW)	172	170	169	512
(B) Period Hrs	8,784	8,784	8,784	8,784
(C) Net Generation (mWh)	1,166,990	1,158,595	1,317,093	3,642,678
(D) Capacity Factor (%)	77.22	77.46	88.64	81.08
(E) Net mWh Not Generated due to Full Scheduled Outages	192,491	175,725	177,749	545,964
(F) Scheduled Outages: percent of Period Hrs	12.74	11.75	11.96	12.15
(G) Net mWh Not Generated due to Partial Scheduled Outages	0	0	16,122	16,122
(H) Scheduled Derates: percent of Period Hrs	0.00	0.00	1.09	0.36
(I) Net mWh Not Generated due to Full Forced Outages	4,351	12,134	1,793	18,278
(J) Forced Outages: percent of Period Hrs	0.29	0.81	0.12	0.41
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	3,974	3,974
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.27	0.09
(M) Net mWh Not Generated due to Economic Dispatch	147,400	149,371	0	265,880
(N) Economic Dispatch: percent of Period Hrs	9.75	9.99	0.00	5.92
(O) Net mWh Possible in Period	1,511,232	1,495,824	1,485,840	4,492,896
(P) Equivalent Availability (%)	85.99	86.44	86.23	86.99
(Q) Output Factor (%)	88.87	89.39	100.83	93.03
(R) Heat Rate (BTU/NkWh)	11,463	10,050	0	6,869

Footnote: (R) Includes Light Off BTU's
Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
October, 2015 through September, 2016**

Richmond County Station

	Unit 9	Unit 10	Unit ST5	Block Total
(A) MDC (mW)	193	193	248	634
(B) Period Hrs	8,784	8,784	8,784	8,784
(C) Net Generation (mWh)	1,389,990	1,392,364	1,818,947	4,601,301
(D) Capacity Factor (%)	82.01	82.15	83.38	82.59
(E) Net mWh Not Generated due to Full Scheduled Outages	136,982	139,267	229,384	505,634
(F) Scheduled Outages: percent of Period Hrs	8.08	8.22	10.52	9.08
(G) Net mWh Not Generated due to Partial Scheduled Outages	0	0	0	0
(H) Scheduled Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(I) Net mWh Not Generated due to Full Forced Outages	3,563	8,036	40,164	51,763
(J) Forced Outages: percent of Period Hrs	0.21	0.47	1.84	0.93
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	164,345	155,212	92,913	412,470
(N) Economic Dispatch: percent of Period Hrs	9.70	9.16	4.26	7.40
(O) Net mWh Possible in Period	1,694,880	1,694,880	2,181,408	5,571,168
(P) Equivalent Availability (%)	91.79	91.46	87.60	89.99
(Q) Output Factor (%)	92.56	93.19	96.37	94.22
(R) Heat Rate (BTU/NkWh)	11,502	11,413	0	6,928

Footnote: (R) Includes Light Off BTU's
Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
October, 2015 through September, 2016**

Roxboro Station

Unit 2

(A) MDC (mW)	672
(B) Period Hrs	8,784
(C) Net Generation (mWh)	2,899,950
(D) Capacity Factor (%)	49.14
(E) Net mWh Not Generated due to Full Scheduled Outages	630,476
(F) Scheduled Outages: percent of Period Hrs	10.68
(G) Net mWh Not Generated due to Partial Scheduled Outages	2,226
(H) Scheduled Derates: percent of Period Hrs	0.04
(I) Net mWh Not Generated due to Full Forced Outages	28,228
(J) Forced Outages: percent of Period Hrs	0.48
(K) Net mWh Not Generated due to Partial Forced Outages	383
(L) Forced Derates: percent of Period Hrs	0.01
(M) Net mWh Not Generated due to Economic Dispatch	2,340,096
(N) Economic Dispatch: percent of Period Hrs	39.65
(O) Net mWh Possible in Period	5,901,360
(P) Equivalent Availability (%)	88.80
(Q) Output Factor (%)	71.66
(R) Heat Rate (BTU/NkWh)	10,112

Footnote: (R) Includes Light Off BTU's
Units in commercial operation for the full month are presented.
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**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
October, 2015 through September, 2016**

Sutton Energy Complex

	Unit 1A	Unit 1B	Unit ST1	Block Total
(A) MDC (mW)	198	198	265	662
(B) Period Hrs	8,784	8,784	8,784	8,784
(C) Net Generation (mWh)	1,343,445	1,415,191	1,701,325	4,459,961
(D) Capacity Factor (%)	77.20	81.33	73.02	76.76
(E) Net mWh Not Generated due to Full Scheduled Outages	133,121	102,081	65,547	300,749
(F) Scheduled Outages: percent of Period Hrs	7.65	5.87	2.81	5.18
(G) Net mWh Not Generated due to Partial Scheduled Outages	0	0	112,023	112,023
(H) Scheduled Derates: percent of Period Hrs	0.00	0.00	4.81	1.93
(I) Net mWh Not Generated due to Full Forced Outages	0	338	0	338
(J) Forced Outages: percent of Period Hrs	0.00	0.02	0.00	0.01
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	173	173
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.01	0.00
(M) Net mWh Not Generated due to Economic Dispatch	263,578	222,534	450,853	936,965
(N) Economic Dispatch: percent of Period Hrs	15.15	12.79	19.35	16.13
(O) Net mWh Possible in Period	1,740,144	1,740,144	2,329,920	5,810,208
(P) Equivalent Availability (%)	93.00	93.79	92.37	92.89
(Q) Output Factor (%)	87.63	88.32	76.51	83.22
(R) Heat Rate (BTU/NkWh)	11,419	11,323	0	7,032

Footnote: (R) Includes Light Off BTU's
Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Intermediate Power Plant
Performance Review Plan
October, 2015 through September, 2016**

Mayo Station

Units	Unit 1
(A) MDC (mW)	735
(B) Period Hrs	8,784
(C) Net Generation (mWh)	1,974,504
(D) Net mWh Possible in Period	6,455,280
(E) Equivalent Availability (%)	87.26
(F) Output Factor (%)	52.40
(G) Capacity Factor (%)	30.59

Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Intermediate Power Plant
Performance Review Plan
October, 2015 through September, 2016**

Roxboro Station

Units	Unit 3	Unit 4
(A) MDC (mW)	694	703
(B) Period Hrs	8,784	8,784
(C) Net Generation (mWh)	1,812,979	1,907,085
(D) Net mWh Possible in Period	6,095,280	6,178,656
(E) Equivalent Availability (%)	76.01	88.91
(F) Output Factor (%)	65.47	71.30
(G) Capacity Factor (%)	29.74	30.87

Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

Duke Energy Progress
Outages for 100 mW or Larger Units
September, 2016

Full Outage Hours

<u>Unit Name</u>	<u>Capacity Rating (mW)</u>	<u>Scheduled</u>	<u>Unscheduled</u>	<u>Total</u>
Brunswick 1	938	0.00	0.00	0.00
Brunswick 2	932	0.00	0.00	0.00
Harris 1	928	0.00	0.00	0.00
Robinson 2	741	108.92	0.00	108.92

Duke Energy Progress
Outages for 100 mW or Larger Units
September 2016

Unit Name	Capacity Rating (mW)	Full Outage Hours		Total Outage Hours
		Scheduled	Unscheduled	
Asheville Steam 1	189	0.00	0.00	0.00
Asheville Steam 2	189	576.00	0.00	576.00
Asheville CT 3	164	0.00	0.00	0.00
Asheville CT 4	160	0.00	86.50	86.50
Darlington CT 12	118	56.83	0.00	56.83
Darlington CT 13	116	7.37	0.00	7.37
Lee Energy Complex CC 1A	177	0.00	0.00	0.00
Lee Energy Complex CC 1B	176	0.00	0.00	0.00
Lee Energy Complex CC 1C	179	0.00	0.00	0.00
Lee Energy Complex CC ST1	378	0.00	0.00	0.00
Mayo Steam 1	727	0.00	0.00	0.00
Richmond County CC 1	157	187.00	3.53	190.53
Richmond County CC 2	156	14.00	0.00	14.00
Richmond County CC 3	155	0.00	27.33	27.33
Richmond County CC 4	159	221.85	0.17	222.02
Richmond County CC 6	153	10.30	0.00	10.30
Richmond County CC 7	160	500.07	0.00	500.07
Richmond County CC 8	157	500.07	0.00	500.07
Richmond County CC ST4	165	500.33	0.00	500.33
Richmond County CC 9	178	163.92	0.00	163.92
Richmond County CC 10	178	163.92	0.00	163.92
Richmond County CC ST5	250	139.98	0.00	139.98

Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

Duke Energy Progress
Outages for 100 mW or Larger Units
September 2016

Unit Name	Capacity Rating (mW)	Full Outage Hours		Total Outage Hours
		Scheduled	Unscheduled	
Roxboro Steam 1	379	0.00	0.00	0.00
Roxboro Steam 2	671	7.13	0.00	7.13
Roxboro Steam 3	691	333.50	0.00	333.50
Roxboro Steam 4	698	0.00	70.98	70.98
Sutton Energy Complex CC 1A	179	13.40	0.00	13.40
Sutton Energy Complex CC 1B	179	4.52	0.00	4.52
Sutton Energy Complex CC ST1	264	0.00	0.00	0.00
Wayne County CT 10	177	0.00	0.00	0.00
Wayne County CT 11	174	12.00	0.00	12.00
Wayne County CT 12	173	57.60	2.58	60.18
Wayne County CT 13	170	209.83	0.00	209.83
Wayne County CT 14	169	0.00	0.00	0.00

Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

Duke Energy Progress
Base Load Power Plant Performance Review Plan

Period: August, 2016

Station	Unit	Date of Outage	Duration of Outage	Scheduled / Unscheduled	Cause of Outage	Reason Outage Occurred	Remedial Action Taken
Brunswick	1	None					
	2	None					
Harris	1	None					
Robinson	2	08/24/2016 - 08/27/2016	74.78	Unscheduled	Turbine trip resulted in a reactor trip	Interaction of turbine trip mechanism and trip box cover	Completed inspections and maintenance activities
	2	08/27/2016 - 09/01/2016	103.58	Scheduled	Maintenance outage to repair low pressure turbine blades	Outage to address turbine blade indications	Turbine blade indications repaired